



# California State University, Sacramento

## Department of Communication Sciences and Disorders

### UNDERGRADUATE SYLLABUS & COURSE OUTLINE

Semester/Year: Fall 2019	Course: CSAD 111 Anatomy and Physiology of the Speech Mechanism.	Section: 02
Meeting Days: Monday/Wednesday/Friday	Meeting Times: 1:00 PM-1:50 PM	Location: Folsom Hall 1049
Instructor: Dr. Tonia Davis, CCC-SLP	Email: tonia.davis@csus.edu	Phone: 916-278- 6679
Office Location: Folsom Hall 2316	Office Hours/Appointments: Monday/Tuesday/Wednesday, 12:00 PM-1:00 PM	

#### Catalogue Course Description:

**CSAD 111. Anatomy and Physiology of the Speech Mechanism.**

**3 Units**

**Prerequisite(s):** [CHDV 30](#), [DEAF 51](#), [PSYC 2](#), and [STAT 1](#)

**Corequisite(s):** [CSAD 110](#)

**Term Typically Offered:** Fall only

Anatomical, physiological and neurological bases of speech. Covers development, normal structure and function. A general course in human anatomy is recommended as background.

Sacramento State Baccalaureate Learning Goals for the 21st Century (BLG)	Addressed by this course (Y/N)
<b>Competence in the Disciplines:</b> <i>The ability to demonstrate the competencies and values listed below in at least one major field of study and to demonstrate informed understandings of other fields, drawing on the knowledge and skills of disciplines outside the major.</i>	Y
<b>Knowledge of Human Cultures and the Physical and Natural World</b> <i>through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts. Focused by engagement with big questions, contemporary and enduring.</i>	N
<b>Intellectual and Practical Skills,</b> Including: <i>inquiry and analysis, critical, philosophical, and creative thinking, written and oral communication, quantitative literacy, information literacy, teamwork and problem solving, practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance.</i>	Y
<b>Personal and Social Responsibility,</b> Including: <i>civic knowledge and engagement—local and global, intercultural knowledge and competence*, ethical reasoning and action, foundations and skills for lifelong learning anchored through active involvement with diverse communities and real-world challenges</i>	N
<b>Integrative Learning**,</b> Including: <i>synthesis and advanced accomplishment across general and specialized studies</i>	Y

## Course Learning Outcomes:

### UNDERGRADUATE

Mastery of each student-learning outcome listed below is indicated by a grade of C or better on each component of the corresponding measures listed in the table. Students are required to track their progress towards meeting each learning outcome and must make an appointment with the instructor for any grade equal to or less than a C. The instructor will suggest strategies to help you establish competence and knowledge in these areas.

Students should track their progress towards meeting each learning outcome by listing their grades on the table below over the course of the semester.

### **CSAD 111 SPECIFIC STUDENT LEARNING OUTCOMES:**

In preparation for courses on disordered systems, students will be able to identify and describe the typical anatomy and physiology of the following systems:

1. Respiration
2. Phonation
3. Articulation
4. Mastication & Deglutition
5. Neuroanatomy
6. Audition

Course Learning Outcome	Components Indicating Competence	Grades Received
1	Exam 1 Labs 1, 2, 3	
2	Exam 2 Labs 4, 5	
3	Exam 3 Labs 6, 7	
4	Exam 3 Labs 6, 7	
5	Exam 4 Labs 8, 9	
6	Exam 5 Lab 10	

## Textbooks and Materials:

### **Required Text**

Seikel, J.A., Drumright, D.G., & King, D.W. (2016). *Anatomy and Physiology for Speech, Language, and Hearing*, 5<sup>th</sup> edition, Plural Publishing.

You do not need access to the online supplementary materials (see below).

The textbook is available on course reserves in the library on main campus.

### **Other Materials**

For various lab activities, you will need to have: construction paper, scissors, glue/tape, pipe cleaners, and markers/crayons/coloring pencils. You may wish to use additional materials.

## Online Resources:

### **Canvas**

All powerpoints, labs, study guides, and supplemental materials will be posted on Canvas.

<http://csus.instructure.com>

### **Human Biodigital Anatomical Modeling**

We will also be using the following website in class and for some lab assignments:

<https://human.biodigital.com/index.html>

Some Mac users have said that the dissection tools do not work in the Safari browser – please check your browsers.

This program is FREE!

## Grading Policy:

The *Anatomy and Physiology of the Speech and Hearing Mechanism* course includes two major components of assessment: examinations and laboratory activities.

1. Five Examinations (100 points each)

Topic	Date
Respiration	9/16
Phonation	10/7
Articulation/Mastication/Deglutition	11/1
Neuroanatomy	11/25
<b>Cumulative</b> Final with emphasis on Audition	TBD

2. Ten Labs (20 points each)

Topic	Lab	Due Date
Anatomical Terminology	Lab 1 – Nomenclature	8/30
Respiration	Lab 2 – Boyle’s Law	9/9
Respiration	Lab 3 – Muscles	9/11
Phonation	Lab 4 – Build A Larynx	9/20
Phonation	Lab 5 – Bernoulli Principle	9/30
Articulation	Lab 6 – Oral Motor Exams	10/9
Articulation	Lab 7 – Draw a Face	10/18
Neuroanatomy	Lab 8 – Cranial Nerves	11/13
Neuroanatomy	Lab 9 – Circle of Willis	11/20
Audition	Lab 10 – Build an Ear	12/4

Letter grades are assigned according to the following scores:

	A 95-100%	A- 90-94%
B+ 88-89%	B 83-87%	B- 80-82%
C+ 78-79%	C 73-77%	C- 70-72%
D+ 68-69%	D 63-67%	D- 60-62%
	F Below 60%	

## Course Policies/Procedures:

### Attendance

Your attendance is expected, but there are no points associated with attendance. Please email the instructor if you will be absent. You are responsible for all material in lectures and labs as well as the material in the required textbook. If you miss a class, you are responsible for attaining the covered material or completing the lab out of class. If you are late to class, please slip in quietly without disturbing others.

### Exam Makeups

You should make every effort to attend class on exam days. In situations where a makeup exam is required, all makeup exams will take place through the testing center (<https://www.csus.edu/testing/>). It is the responsibility of the student to arrange the makeup, provide documentation to the instructor, and have the makeup approved.

All examination makeups require **documentation of need**. Some common reasons for needing to take an examination late include: significant or serious illness (student or immediate family member), religious observance, natural disasters, and motor vehicle accidents on the day of the scheduled examination. If you are not sure if your situation meets the requirements for exam makeup, please speak to the instructor. Exam makeups should take place within one week of the scheduled examination.

### Late Assignments

All labs will be turned in via **Canvas**. Labs will not be accepted by email or hard copy. Labs will be accepted late within 72 hours of the due date. Students will lose a letter grade for each day late (2 points/day). Labs will not be accepted more than 72 hours after the due date.

### Electronic Devices

Electronic devices may be used to access course materials during each class session. Cell phones should be on silent. If you need to be reached during the class for an emergency, please inform the instructor prior to the start of class. In CSAD 111, you may audio-record during **lectures only**. You may not record during labs or when going over exams.

Research consistently demonstrates that students retain information more accurately when notes are taken by hand. Even when students do *not* multi-task, handwritten notes promote retention over typed notes (Mueller & Oppenheimer, 2014). While students are welcome to use devices in class to access powerpoints, research articles, or group project materials, students should be aware of this research.<sup>1</sup>

### Office Hours Policies

Please feel free to drop by office hours – you do not need an appointment, and you may come in groups/join others. In most cases, you will have the same questions as other students, and it is useful to learn from one another. If you would like to have a private appointment, please schedule one with the instructor by email.

### Extra Credit Opportunities

There will be opportunities for extra credit throughout the semester. Extra credit opportunities will be announced in class or posted on Canvas. It is the responsibility of the student to follow through on extra credit opportunities.

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<sup>1</sup> Mueller, P. A., & Oppenheimer, D. M. (2014). The pen is mightier than the keyboard: Advantages of longhand over laptop note taking. *Psychological science*, 25(6), 1159-1168.  
<https://www.scientificamerican.com/article/a-learning-secret-don-t-take-notes-with-a-laptop/>

## **Letters of Reference**

I accept requests for letters of reference for graduate school in the fall of your senior year (for students applying as seniors; by November 15), or spring of your senior year (for students applying after graduating). Should you need a letter of reference for a scholarship opportunity, I would be happy to provide one. I typically need approximately two weeks to write a letter of reference; however, during “grad apps season” (November-February), I will often need four weeks’ notice.

## **ASHA Code of Ethics Statement**

As a future clinician, I expect you to follow the Sacramento State Commitment to Integrity (see Additional Information) as well as the American Speech Language Hearing Association (ASHA) Code of Ethics.

*The four Principles of Ethics form the underlying philosophical basis for the Code of Ethics and are reflected in the following areas:*

- (I) responsibility to persons served professionally and to research participants, both human and animal;*
- (II) responsibility for one's professional competence;*
- (III) responsibility to the public; and*
- (IV) responsibility for professional relationships.<sup>2</sup>*

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<sup>2</sup> <https://www.asha.org/code-of-ethics/>

### Tentative Course Schedule:

Date	Topic	Due
8/26	Introduction Syllabus Overview	
8/28	Nomenclature Tissues Read Chapter 1 pg 1-20 (to joints)	
8/30	<b>Lab 1</b> – Nomenclature	Lab 1 due midnight
9/2	<i>Labor Day – no class</i>	
9/4	Respiratory Structures Read Chapter 2 pg 49-88	
9/6	Respiratory Mechanics Read Chapter 3 pg 143-165	
9/9	<b>Lab 2</b> – Boyle's Law	Lab 2 due midnight
9/11	<b>Lab 3</b> – Respiratory Muscles Read Chapter 2 pg. 93-132	Lab 3 due midnight
9/13 – IDA	Review Day	
9/16	<b>Exam 1</b>	<b>Exam 1</b>
9/18	Laryngeal Structures Read Chapter 4 pg. 183-188 & 200-209	
9/20	<b>Lab 4</b> – Build a Larynx	Lab 4 due midnight
9/23	Intrinsic Muscles Read Chapter 4 pg. 209-222	
9/25	Extrinsic Muscles Read Chapter 4 pg. 222-236	
9/27	Laryngeal Mechanics Read Chapter 5 pg. 245-266	
9/30 – RH	<b>Lab 5</b> – Bernoulli Principle	Lab 5 due midnight
10/2	Laryngeal Development & Disorder	
10/4	Review Day	
10/7	<b>Exam 2</b>	<b>Exam 2</b>
10/9 – YK	<b>Lab 6</b> – Oral Motor Exams Read Chapter 6 pg. 299-304 & 355-361	Bring a flashlight (your phone is fine) to class
10/11	Visible Structures/Pathways	Lab 6 due midnight
10/14	Craniofacial Structures Read Chapter 6 pg. 305-341	
10/16	Craniofacial Muscles Read Chapter 6 pg. 361-396	
10/18	<b>Lab 7</b> – Draw a Face	Lab 7 due midnight

10/21	Articulatory Physiology Read Chapter 7 pg. 413-421	
10/23	Mastication Read Chapter 6 pg. 341-355 (dentition) Read Chapter 8 pg. 447-466	Bring food to class!
10/25	Deglutition	Bring food to class!
10/28	Craniofacial Development & Disorder Read Chapter 7 pg. 421-430	
10/30	Review Day	
11/1	<b>Exam 3</b>	<b>Exam 3</b>
11/4	Neural Structures Read Chapter 11 pg. 597-630 & pg.634-645	
11/6	Neural Pathways Read Chapter 12 pg. 708-722	
11/8	Neural Pathways (2) Read Chapter 11 pg. 652-675	
11/11	<i>Veteran's Day – no class</i>	
11/13	<b>Lab 8</b> – Cranial Nerves	Lab 8 due at midnight
11/15	Brain Vasculature Read Chapter 11 pg. 630-634	
11/18	Neural Development & Disorders	
11/20 – ASHA	Lab 9 – Circle of Willis	Lab 9 due at midnight
11/22 – ASHA	Review Day with ISA	
11/25	<b>Exam 4</b>	<b>Exam 4</b>
11/27	<i>Thanksgiving – no class</i>	
11/30	<i>Thanksgiving – no class</i>	
12/2	Auditory Structures Read Chapter 9 pg. 499-526	
12/4	Lab 10 – Build an Ear	Lab 10 due at midnight
12/6	Review Day Course evaluations	
	Cumulative Final Exam	<b>Final Exam TBD</b>



# Additional Information

## Commitment to Integrity:

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom.

## Sac State's Academic Honesty Policy & Procedures:

“The principles of truth and honesty are recognized as fundamental to a community of scholars and teachers. California State University, Sacramento expects that both faculty and students will honor these principles, and in so doing, will protect the integrity of academic work and student grades.” Read more about Sac State's Academic Honesty Policy & Procedures at the following website: <http://www.csus.edu/umannual/student/stu-0100.htm>

**Definitions:** At Sac State, “cheating is the act of obtaining or attempting to obtain credit for academic work through the use of any dishonest, deceptive, or fraudulent means.” **Plagiarism** is a form of cheating. At Sac State, “plagiarism is the use of distinctive ideas or works belonging to another person without providing adequate acknowledgement of that person's contribution.” Source: Sacramento State University Library Note: Any form of academic dishonesty, including cheating and plagiarism, may be reported to the office of student affairs.

## Understand When You May Drop This Course:

It is the student's responsibility to understand when he/she need to consider disenrolling from a course. Refer to the Sac State Course Schedule for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons include: (a) documented and significant change in work hours, leaving student unable to attend class, or (b) documented and severe physical/mental illness/injury to the student or student's family. Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if there is a compelling extenuating circumstance. All incomplete course assignments must be completed by the department's policy.

## Equal Access:

California State University-Sacramento, Department of Communication Sciences and Disorders, seeks to provide equal access to its programs, services, and activities for people with disabilities. If you have a documented disability and verification from the Office of Services to Students with Disabilities (SSWD), and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to SSWD and meet with a SSWD counselor to request special accommodation before classes start. **Sacramento State Services to Students with Disabilities (SSWD)** offers a wide range of support services and accommodations for students in order to ensure students with disabilities have equal access and opportunity to pursue their educational goals. Working collaboratively with students, faculty, staff and administrators, SSWD provides consultation and serves as the information resource on disability related issues to the campus community. SSWD is located in Lassen Hall 1008 and can be contacted by phone at (916) 278-6955 (Voice) or (916) 278-7239 (TDD only) or via email at [sswd@csus.edu](mailto:sswd@csus.edu).

As a clinician first, I am dedicated to helping students to access the course content and to achieve their academic goals with accommodation for physical disabilities (including sensory disabilities), learning disabilities, and/or mental health diagnoses. Please feel that you can speak to me directly, and I will do my best to support you in pursuing course accommodations.

## Basic Needs Support

If you are experiencing challenges in the area of food and/or stable housing, help is available. Sacramento State offers basic needs support for students who are experiencing challenges in these areas. Please visit our Basic Needs website to learn more about your options and resources available. <https://www.csus.edu/basicneeds/>

## Mental Health and Counseling

If you or a loved one are in crisis, please reach out. For immediate assistance, consider <https://www.crisistextline.org/>. For additional counseling support, Sacramento State offers counseling services through the WELL. Or just reach out to any of your instructors, and we can help you to find the resources you need.

## Other Resources

Testing Center: <https://www.csus.edu/testing/>

Library: <https://library.csus.edu/>

Services to Students with Disabilities: <https://www.csus.edu/sswd/>

Student Health and Counseling Services at The WELL: <https://www.csus.edu/shcs/>

Peer & Academic Resource Center: <https://www.csus.edu/parc/>

Student Academic Success and Education Equity Programs: <https://www.csus.edu/saseep/>

Case Manager, Office of Student Affairs: <https://www.csus.edu/student/casemanager/>

# Knowledge And Skills Acquisition (KASA) For Certification in Speech-Language Pathology

## **CSAD 111 Anatomy and Physiology of the Speech Mechanism..**

This course has been designed to be in direct support of the following American Speech-Language Hearing Association (ASHA) 2017 Knowledge and Skills Acquisition for certification in Speech-Language Pathology:

### Standard IV-A

- The student will demonstrate prerequisite knowledge of the biological sciences.

### Standard IV-B: Basic Human Communication Processes

- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: biological bases of human communication.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: neurological bases of human communication.

### Standard IV-B: Swallowing Processes

- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: biological bases of human communication.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: neurological bases of human communication.